Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A novel architecture for set associative cache, comprising:

a set associative cache having a plurality of ways wherein the ways are segmented into a plurality of banks and wherein a first way has a faster access time than the access time of the other ways of the plurality of ways;

access control logic which manages access to the cache and is coupled to said plurality of ways~~;~~, the access control logic being physically closer to the first way than to the other ways of the plurality of ways;

a plurality of muxes coupled to said first way in each of said banks and coupled to said access control logic; and

wherein the access control logic controls the mux in a bank to remap any defective way in a bank to the first way in that same bank.

2. (Currently amended) The architecture of claim 1 wherein said first way has **[[**a**]]** said faster access time because it has a physical ~~physically shorter~~ path to said access control logic that is shorter than the respective physical paths from the other ways of the bank to said access control logic.

3. (Original) The architecture of claim 1 further comprising self test logic coupled to said access control logic to test the cache for defects.

4. (Original) The architecture of claim 3 wherein said self test logic tests the cache for defects on power up.

5. (Original) The architecture of claim 3 wherein said self test logic stores the location of defects in a status register.

6. (Currently amended) The architecture of claim 5 wherein said access control logic reads the location of defects in the cache from the status register to determine ~~proper~~ control of said muxes, and delivers one or more control signals to the muxes to assert said control.

7. (Currently amended) The architecture of claim 1 wherein said set associative cache has a data array having a plurality of ways wherein the ways are segmented into a plurality of banks and wherein a first way has a faster access time than the access time of the other ways of the plurality of ways of the data array, by virtue of said access control logic being physically closer to the first way than to the other ways of the plurality of ways.

8. (Currently amended) The architecture of claim 1 further comprising a plurality of ways having a faster access time than the access time of at least some of the other ways of the plurality of ways and a plurality of muxes coupled to said plurality of ways in each of said banks and coupled to said access control logic.

9. (Original) The architecture of claim 8 wherein the access control logic controls the plurality of muxes in a bank to remap any defective way in a bank to a different way in that same bank.

10.-12. (Canceled).

13. (Currently amended) A microprocessor die, comprising:

self test logic which tests the die for defects;

a set associative cache having a plurality of ways that are each segmented into a plurality of banks;

access control logic coupled to said self test logic and coupled to said plurality of ways in said cache;

wherein each bank includes a first way that has a physical ~~physically shorter~~ path to said access control logic that is shorter than the respective physical paths from the other ways of the bank to said access control logic; and

a plurality of muxes each coupled to a corresponding first way in each of said plurality of banks and coupled to said access control logic,

wherein the access control logic controls the mux in a bank to remap any defective way in that bank to the first way in that same bank.

14. (Currently amended) The microprocessor die of claim 13 comprising a plurality of ways having a physical ~~physically shorter~~ path to said access control logic that is shorter than at least some of the respective physical paths from the other ways of the bank to said access control logic, and a plurality of muxes coupled to said plurality of ways in each of said banks and coupled to said access control logic.

15. (Original) The microprocessor die of claim 14 wherein the access control logic controls the plurality of muxes in a bank to remap any defective way in a bank to a different way in that same bank.

16.-18. (Canceled).

19. (Currently amended) A method of absorbing defects in a set associative cache, comprising:

providing a set associative cache with a plurality of ways wherein the ways are segmented into a plurality of banks and wherein a first way in each bank has a ~~fastest~~ faster access time than the access time of the other ways of the plurality of ways in each bank;

providing a mux in each bank coupled to said first way in that bank; and

using the mux in a bank to remap any defective way in a bank to the first way in that same bank.

20. (Original) The method of claim 19 further comprising the step of testing for errors in the cache.

21. (Original) The method of claim 19 further comprising the step of disabling a way in a bank when that way is defective.

22. (Currently amended) The method of claim 19 comprising a plurality of ways having a faster access time than the access time of the other ways of the plurality of ways in each bank, by virtue of the physical proximity of the first way to a control logic relative to the other ways of the plurality of ways, and a plurality of muxes coupled to said plurality of ways in each of said banks, said control logic controlling the muxes.

23. (Original) The method of claim 22 wherein the plurality of muxes in a bank are used to remap any defective way in a bank to a different way in that same bank.

24. (Currently amended) A computer system, comprising:

a power supply;

a microprocessor comprising:

a set associative cache having a plurality of ways that are each segmented into a plurality of banks;

access control logic coupled to said self test logic and coupled to said plurality of ways in said cache;

wherein each bank includes a first way segment that has a physical ~~physically shorter~~ path to said access control logic that is shorter than the respective physical paths from the other ways of the bank to said access control logic; and

a plurality of muxes each coupled to a corresponding first way segment in each of said plurality of banks and coupled to said access control logic,

wherein the access control logic controls the mux in a given bank to remap any defective way segment in that bank to the first way segment in that same bank.